

## **PRODUCTION AND USE OF DERIVATIZED HOMOSERINE LACTONES**

### **ABSTRACT OF THE DISCLOSURE**

The present invention provides analogues of autoinducer molecules that are derivatized to allow their attachment to other molecules and surfaces. Libraries of the autoinducer analogues are also contemplated. Also provided are methods for using the compounds of the invention to produce compositions, such as immunoconjugates, antibodies and vaccines, which are useful for treating and preventing disease states in a subject. The compositions of the invention are also useful in various assays, including assessing the autoinducer load in a subject.